

and each of the more important sections of a genus at least, are illustrated in the text, while all species that have not been satisfactorily figured elsewhere, are, as far as possible, to be represented on the coloured plates. These are issued and sold separately—a great advantage for working entomologists, who frequently require more than one copy of a work of this description; and it would be too much to expect them to buy a duplicate set of coloured plates too. We regret that both the plain and coloured figures represent one side of the insect only; but this inartistic method was absolutely unavoidable without a very large (and, for scientific purposes, unnecessary) additional outlay of both space and money.

We hope Sir George Hampson may live to bring out many more volumes similar to the book now before us.

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

November 9th, 1898.—W. Whitaker, B.A., F.R.S.,
President, in the Chair.

The following communication was read:—

‘On the Radiolaria in the Devonian Rocks of New South Wales.’
By G. J. Hinde, Ph.D., F.R.S., F.G.S.

Hand-specimens of the various radiolarian rocks discovered by Messrs. David and Pittman in New South Wales were forwarded to the Author, and from them numerous microscopic sections were prepared. In the chert and jasper rocks of the Jenolan, Bingara, and Tamworth districts, the radiolaria were for the most part in the condition of casts filled with chalcedonic silica and without structure, so that their generic characters could not be determined. Also in the claystones, the radiolaria were but poorly shown in sections, though the structure could be seen in specimens weathered out naturally on the surface of the rock. But in the siliceous limestones and in the volcanic tuffs the radiolaria were embedded in, and infiltrated with calcite, and by careful etching of thin sections of the rock, the lime was eliminated and the organisms were shown very distinctly. The rock then appeared as a confused mass of entire and fragmentary radiolaria and minute debris of their spines and latticed tests. The silica of these forms is for the most part still in its colloid condition; in some, however, it has been replaced by a dark mineral.

Fifty-four species belonging to 29 genera have been determined and figured; all the species and four genera are regarded as new; excepting a few primitive types of Nassellaria, the forms belong to the Spumellaria. The large majority may be included in the

Sphæroidea and Prunoidea with medullary tests and radial spines. They do not show any near relationship to the radiolaria described from Devonian rocks in Europe, but in some features they resemble the radiolarian faunas of Ordovician age in the South of Scotland, Cornwall, and Cabrières, Languedoc.

No other fossils beyond a few simple sponge-spicules and, on two or three horizons, some fragmentary impressions of *Lepidodendron australe*, have been found in association with the radiolaria.

These New South Wales radiolarian deposits are by far the most extensive of any hitherto known, and they are remarkable not only for their great thickness but also for the manner in which the radiolaria are preserved in the limestones, tuffs, and claystones.

November 23rd, 1898.—W. Whitaker, B.A., F.R.S.,
President, in the Chair.

The following communication was read:—

‘On the Remains of *Amia* from Oligocene Strata in the Isle of Wight.’ By E. T. Newton, Esq., F.R.S., F.G.S.

The specimens described in this communication were found by Mr. Clement Reid in the Bembridge Marls of Hamstead, and by Mr. Colenutt in the Bembridge Beds and in the Osborne Series of King’s Quay, near Ryde. After a reference to species described in America and referred to the genera *Amia*, *Protamia*, *Hypamia*, and *Pappichthys*, the Author proceeds to the description of the specimens in question, referring them all to the genus *Amia*. The specimens include the following bones:—vertebræ, maxillæ with the supplementary bones, premaxillæ, bones of the skull, dentary bones, a parasphenoid, a clavicle, scales, and teeth. They are referred to two new species of the genus *Amia*. The paper concludes with a table of all the species hitherto recorded from America and Europe.

December 21st, 1898.—W. Whitaker, B.A., F.R.S.,
President, in the Chair.

The following communication was read:—

‘On a Megalosauroid Jaw from Rhætic Beds near Bridgend, Glamorganshire.’ By E. T. Newton, Esq., F.R.S., F.G.S. (Communicated by permission of the Director-General of H.M. Geological Survey.)

The specimen which forms the subject of the present communication was obtained by Mr. John David of Porthcawl, from a mason, and it has been presented to the Museum of Practical Geology. It was derived from beds low down in the Rhætic Series, which may eventually have to be included in the upper part of the Keuper. The lamellibranchs on the same slab appear to be *Pallaster arenicola*.

and possibly *Myophoria*. The specimen has been compared with reptilian jaws in the British Museum: it consists of a mould of the dentary bone with several teeth in place. The impression of the whole of the inner surface, and of the anterior half of the outer surface, is preserved. The front half of the inner surface of the jaw is like that of *Megalosaurus*, except in size. Many of the teeth are seen in various stages of projection from their sockets, and the points of two successional teeth may also be seen, and thus the mode of succession of the teeth may be clearly understood. The specimen does not admit of exact comparison with *Megalosaurus*, and it is named as a new species of *Zanclodon*—a genus in which the Author is also inclined to place some forms described under the names of *Palæosaurus*, *Cladyodon*, *Avalonia*, and *Picrodon*.

MISCELLANEOUS.

Lichtenstein's 'Catalogus rerum naturalium.'

To the Editors of the 'Annals and Magazine of Natural History.'

GENTLEMEN,—Lichtenstein's 'Catalogus,' 1793-96 (3 parts), is so rare that only two copies are known to exist, one in the British Museum and one in the University of Kiel. Mr. DuCane Godman reprinted part 1 (Mammalia and Birds) for the Willughby Society in 1882, but he did not then know the name of the owner of the collection catalogued. In working through the Banksian Tracts I have come across 'Catalogus Musei Zoologici ditissimi Hamburgi, d. 16 Majus, 1797, Sectio Tertia continens Insecta.' The close similarity of the title and of the printing of the tract, and the fact that the specific names were familiar, recalled to my memory the 'Catalogus rerum.' On comparing the two I found them identical, except that in the 1797 tract many species that appeared in the 'Catalogus rerum' were missing. The 1797 tract was therefore obviously by Lichtenstein, and a reference to Hagen (Bibl. Entom. 1862, p. 477) showed that he had seen part 3 of the 'Catalogus rerum,' but catalogued it under its subtitle, and so lost its identity. Furthermore, Hagen notes that it was a catalogue of the "Museum Holthuisen" (*cf.* Engelmann, Bibl. Hist. Nat. 1846, p. 488). It therefore appears that the 1797 Catalogue was a reprint of the 'Catalogus rerum' with the "sold" items struck out, and that the original sale of the Museum Holthuisen being in part a failure, the collection was again put up for sale in the following year.

C. DAVIES SHERBORN
(*'Index animalium'*).